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❑ Using the INFO button

The TV identifies the current channel and the status of certain audio-video settings.

When you press the **INFO** button, a channel information banner will appear on the top of the screen. And then press the ↵ button, you can see the details of the programme. (digital channels only)

- Scroll ◄, ► to view information for a desired programme while watching the current channel.
- Scroll ▲, ▼ to view information for other channels. If you want to move to the currently selected channel, press the ↵ button.

❑ Memorizing channels

■ Aerial (Air/Cable)

MENU → Broadcasting → Aerial → ↵

Before your television can begin memorising the available channels, you must specify the type of signal source that is connected to the TV.

Auto Tuning

MENU → Broadcasting → Auto Tuning → ↵

Scans for a channel automatically and stores in the TV.

Automatically allocated programme numbers may not correspond to actual or desired programme numbers. If a channel is locked, the PIN input window appears.

- Auto Tuning

  Aerial (Air/Cable): Select the aerial source to memorise.

  When selecting Air, scans for a channel automatically and stores in the TV.

  Digital & Analogue (Digital & Analogue / Digital / Analogue): Select the channel source to memorise.

When selecting Cable → Digital & Analogue, Digital or Analogue

– **Aerial** (depending on the country): Selects a provider of cable services.

– **Search Mode**: Scans for all channels with active broadcast stations and stores them in the TV.

  If you select **Quick**, you can set up the **Network**, **Network ID**, **Frequency**, **Modulation** and **Symbol Rate** manually by pressing the button on the remote control.

– **Network**: Selects the **Network ID** setting mode among **Auto** or **Manual**.

  • **Network ID**: When **Network** is **Manual**, you can set up **Network ID** using the numeric buttons.

- **Frequency**: Displays the frequency for the channel (differs in each country).
- **Modulation**: Displays available modulation values.
- **Symbol Rate**: Displays available symbol rates.

- **Cable Search Option**

  (depending on the country & cable channels only)

  Sets additional search options such as the frequency and symbol rate for a cable network search.

  Start Frequency / **Stop Frequency**: Set the start or stop frequency (differs in each country).

  Symbol Rate: Displays available symbol rates.

  Modulation: Displays available modulation values.

❑ Using the Channel menu

MENU → Broadcasting → Channel List → ↵

■ Channel List

The Channel List contains the channels your TV displays when you press the channel button. You can view channel information, All, TV, Radio, Data/Other, Analogue or Favourites 1-5.

Press ►(Mode) button to change the channel mode, or press ◄ (Sorting) button to change the channel order according to channel number or name on the list.

When you press the **CH LIST** button on the remote control, Channel List screen will be displayed at once.

Channel Sorting

- Number / Name: Arranges the channel order according to channel number or name on the list.

Channel Mode

- **Aerial**: Switches to **Air** or **Cable**.
- **Edit Favourites**: Set channels you watch frequently as favourites.

For detailed information about using **Edit Favourites**, refer to "**Edit Favourites**".

- **Favourites 1-5**: Shows all favourite channels, arranged in up to five groups. Each group has a separate screen.

  The TV displays **Favourites 1-5** only if you have added favourites using **Edit Favourites**.

- **All**: Shows all currently available channels.
- **TV**: Shows all currently available TV channels.
- **Radio**: Shows all currently radio channels.
- **Data/Other**: Shows all currently available MHP (Multimedia Home Platform) or other channels.
- **Analogue**: Shows all currently available analogue channels.

Guide

MENU → Broadcasting → Guide → ↵

The EPG (Electronic Programme Guide) information is provided by broadcasters. Using programme schedules provided by broadcasters, you can specify programmes you want to watch in advance so that the channel automatically changes to the selected programme channel at the specified time. Programme entries may appear blank or out of date depending on a channel status.

- A Red (Quick Nav): Viewing the TV programmes on the list quickly using ▲/▼/◄/► buttons. (Only for digital TV)
- B Green (Channel Category): Select the type of channels you want to display.
- C Yellow (Schedule Manager): Moves to the reserved programmes in Schedule Manager.

Schedule Manager

MENU → Broadcasting → Schedule Manager → ↵

You can set a desired channel to be displayed automatically at the intended time. In addition, you can view, modify or delete a channel you have reserved to watch.

You must set the current time first using the System → Time → Clock function in the System menu to use this function.

1. Select the Schedule on the Schedule Manager screen. Press the ENTER↵ button again to select Schedule Viewing.
2. Press the ▲/▼/◄/► buttons to set each option menu.
   - Aerial: Select the desired broadcasting signal.
   - Channel: Select the desired channel.

- **Repeat**: Select **Once**, **Manual**, **Sat~Sun**, **Mon~Fri** or **Everyday** to set at your convenience. If you select **Manual**, you can set the day you want.

  The (✓) mark indicates the day you've selected.

- **Date**: You can set the desired date.

  It is available when you select **Once** in **Repeat**.

- **Start Time**: You can set the start time you want.

If you want to edit or cancel a reserved schedule, select the reserved schedule on **Schedule Manager**. Then press the ↵ button and select the **Edit** or **Delete**.

Edit Channel

MENU → Broadcasting → Edit Channel → ↵

You can edit or delete channels.

1. Go to Edit Channel screen.
2. Press the ▲/▼ buttons to select the desired channel, then press the ↵ button. The (✓) mark indicates the channel you've selected.
   - You can select more than one channel.
   - Press the ↵ again to deselect the channel.

Using the coloured and function buttons with the **Edit Channel**.

- A Red (**Change Number**): Changes channel order on the channel list. / Completes changing the channel order.
- B Green (**Delete**): Deletes a channel from the channel list.
- C Yellow (**Lock** / **Unlock**): Lock a channel so that the channel cannot be selected and viewed. / Unlock the channel that you locked.

This function is available only when the **Channel Lock** is set to **On**.

The PIN input screen appears. Enter your 4-digit PIN(The default pin is 0-0-0-0.). Change the PIN using the **System** → **Change PIN** option.

- D Blue (**Select All** / **Deselect All**): Selects or deselects all channels at once.
- 0~9 (**Go To**): Goes to channel directly by pressing numbers (0~9) and the ↵ button.
- ⇕ (**Page**): Moves to previous or next page.
- ⎙ (**Tools**): Displays the option menu. The option menu items that appear may differ depending on the channel status and type.

- **Sorting** (only for digital channels): Changes the list ordered by channel number or channel name.
- **Category**: Changes the channel mode to **All**, **TV**, **Radio**, **Data/Other**, **Analogue**, **Recently Viewed**, **Most Viewed**. The selected channel mode is displayed.
- **Edit Favourites**: Goes to Edit Favourites Screen directly.
- **Rename channels** (analogue channels only): Assign a name of up to five characters to a channel. For example, Food, Golf, etc. This makes it easier to find and select the channel.
- **Channel Info**: Display details of the selected channel.
- **Information**: Display details of the selected programme.

Edit Favourites TOOLS

MENU → Broadcasting → Edit Favourites → ↵

You can add, edit or delete favourite channels.

1. Go to **Edit Favourites** screen.
2. Press the ▲/▼ buttons to select the desired channel, and then press ↵ button.
3. Choose a specific favourite list among **Favourites 1-5** using B (**Change favourites**) button, and then press the D (**Add**) button. The selected channel has been added in **Favourites 1-5**.

   One favourite channel can be added in several of favourites among **Favourites 1-5**.

Using the coloured and function buttons with the **Edit Favourites**.

- A Red (**Category**)
  - **Category**: Changes the channel mode to **All**, **TV**, **Radio**, **Analogue**, **Data/Other**, **Recently Viewed**, **Most Viewed**. The selected channel mode is displayed.
  - **Change order**: Changes the favourite channel order.
- B Green (**Change Fav.**): Changes favourite list among **Favourites 1-5**.
- C Yellow (**Select All** / **Deselect All**): Selects or deselects all channels at once.
- D Blue (**Add** / **Delete**)
  - **Add** : Adds selescted channels to **Favourites 1-5**.
  - **Delete** : Deletes the favoruite channel from **Favourites 1-5**.
- 0~9 (**Go To**): Goes to channel directly by pressing numbers (0~9).
- ⇕ (**Page**): Moves to previous or next page.

- (**Tools**): Displays the option menu among Favourites1-5. The option menu items that appear may differ depending on the channel status and type.
  - **Copy to Favourites**:Edit the selected favourite channel in **Favourites 1-5**. You can copy this channel to the other favourite list.
  - **Aerial**: Selects the desired broadcasting signal.
  - **Rename Favourites**: Assign your own favourite channel name.
  - **Edit Channel**: Goes to Edit Channel Screen directly.
  - **Information**: Displays details of the selected programme.

❑ Locking Programme

■ Channel Lock

MENU → Broadcasting → Channel Lock → ↵

Enter your 4-digit PIN,the default of which is "0-0-0-0".Change the PIN using the Change PIN option.

Lock channels in Edit Channel menu to prevent unauthorized users, such as children, from watching unsuitable programme.

- Available only when the Source is set to TV.
- If set Channel Lock Off, it's neccessary to input PIN again.

■ Channel Settings

MENU → Broadcasting → Channel Settings → ↵

- **Manual Tuning**

  Scans for a channel manually and stores in the TV.

  If a channel is locked, the PIN input window appears.

  According to the channel source, **Manual Tuning** may be supported.

  - **Digital Channel Tuning**: Scans for a digital channel manually and stores in the TV. Press the **New** button to search the digital channels. When scanning has finished, a channel is updated in the channel list.
    - When selecting **Aerial** → **Air**: **Channel**, **Frequency**
    - When selecting **Aerial** → **Cable**: **Frequency**, **Modulation**, **Symbol Rate** Only for PDP mode

- **Analogue Channel Tuning**: Scans for an analogue channel. Press the **New** button to search the channels by adjusting the **Programme**, **Colour System**, **Sound System**, **Channel**, **Search**.

- **Fine Tune**

  (analogue channels only)

  If the signal is weak or distorted, fine tune the channel manually.

  Fine tuned channels are marked with an asterisk “*”.

  To reset the fine-tuning, select **Reset**.

- **Clear Scrambled Channel** depending on the country

  Search for the scrambled channel and remove them.

Subtitle TOOLS

MENU → Broadcasting → Subtitle → ↵

Use this menu to set the Subtitle mode.

- Subtitle: Switches subtitles on or off.
- Subtitle Mode (Normal / Hearing Impaired): Sets the subtitle mode.
- Subtitle Language: Sets the subtitle language.

  If the programme you are watching does not support the Hearing Impaired function, Normal automatically activates even if the Hearing Impaired mode is selected.

  English is the default in cases where the selected language is unavailable in the broadcast. (Chinese is the default language in PDP model.)
- Primary Subtitle: Sets the primary subtitle.
- Secondary Subtitle: Sets the secondary subtitle.

Audio Options

(digital channels only)

MENU → Broadcasting → Audio Options → ↵

- **Audio Language**

  Change the default value for audio languages.

  Primary audio / **Secondary audio**: You can set the primary or secondary audio.

  The available language may differ depending on the broadcast.

- **Audio Format**

  When sound is emitted from both the main speaker and the audio receiver, a sound echo may occur due to the decoding speed difference between the main speaker and the audio receiver. In this case, use the TV Speaker function.

  Audio Format option may differ depending on the broadcast. DTS Premium Audio 5.1 sound is only available when connecting an external speaker through an optical cable.

- **Audio Description**

  This function handles the Audio Stream for the AD (Audio Description) which is sent along with the Main audio from the broadcaster.

  Audio Description: Turn the audio description function on or off.

  Volume: Adjust the audio description volume.

Digital Text (Disable / Enable) Not for PDP model.

(This function may not support depending on the region.)

If the programme broadcasts with digital text, this feature is enabled.

MHEG (Multimedia and Hypermedia Information Coding Experts Group): An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes datalinking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD (Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), tele-education, teleconferencing, digital libraries and network games.

Guide Type depend on the region Not for PDP model.

MENU → Broadcasting → Guide Type → ↵

Select to use either the built-in or downloaded guide.

- Guide: Set the built-in guide to be displayed when the GUIDE button on the remote control is pressed.
- Auto: Set the TV to select the proper guide automatically when the GUIDE button on the remote control is pressed.

❑ Changing the Preset Picture Mode

MENU → Picture → Picture Mode → ↵

■ Picture Mode TOOLS

Select your preferred picture type.

- Dynamic: Suitable for a bright room.
- Standard: Suitable for a normal environment.
- Natural Not for PDP model and 4100 model. : Provides a display that is comfortable to the eyes.
- Movie: Suitable for watching movies in a dark room.
- Entertain: Suitable for watching movies and games.

  It is only available when connecting a PC. Not for PDP model.

❑ Adjusting Picture Settings

■ Backlight For LED model Cell Light For PDP model / Contrast / Brightness / Sharpness / Colour / Tint (G/R)

Your television has several setting options for picture quality control.

NOTE

- In analogue **TV**, **AV** modes of the PAL system, the **Tint (G/R)** function is not available.
- When connecting a PC, you can only make changes to **Backlight** For LED model , **Cell Light** For PDP model , **Contrast**, **Brightness**, **Sharpness**.
- Settings can be adjusted and stored for each external device connected to the TV.
- Lowering picture brightness reduces power consumption.

Screen Adjustment

MENU → Picture → Picture Size → ↵

Set the various picture options such as picture size and aspect ratio.

The available items may differ depending on the selected mode.

Depending on the input source, the picture size options may vary.

- Picture Size TOOLS: Your cable box/satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.

  Wide Zoom: Magnifies the picture size more than 4:3.

  Adjusts the Position by using ▲, ▼ buttons.

Zoom: Magnifies the 16:9 wide pictures vertically to fit the screen size.

Adjusts the **Zoom** or **Position** by using ▲, ▼ button.

4:3: Sets the picture to basic (4:3) mode.

Do not watch in 4:3 format for a long time. Traces of borders displayed on the left, right and centre of the screen may cause image retention (screen burn) which are not covered by the warranty.

Screen Fit: Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are inputted.

Smart View 1: Reduces original screen to 50%. Not for PDP model and 4100 model

Smart View 2: Reduces original screen to 75%. Not for PDP model and 4100 model

NOTE

- **Smart View 1** is enabled in HDMI mode. Not for PDP model.
- **Smart View 2** is enabled in DTV and HDMI modes. Not for PDP model.
- The picture size can vary depending on the input resolution when content is played using **Videos** under **Media Play**.
- **Zoom/Position**: Adjust the picture size and position. It is only available in **Zoom**.
- **Position**: Adjust the picture position. It is only available in **Screen Fit** or **Wide Zoom**.

NOTE

- After selecting **Screen Fit** in HDMI (1080i / 1080p) or Component (1080i / 1080p) mode, you may need to centre the picture:
  1. Select the **Position** Press the **ENTER** button.
  2. Press the ▲/▼/◄/► button to move the picture.
- If you want to reset the position you adjusted, select Reset in the **Zoom/ Position** or **Position** screen,The picture will be set to its default position.
- If you use the Screen Fit function,1 line may be cut at the top and bottom.

PIP

MENU → Picture → PIP → ↵

You can watch the TV and one external video source simultaneously. For example, if you have a cable box connected to the Cable connector, you can use PIP to watch programs from the cable box and watch a movie from a Blu-ray player attached to the HDMI connector. PIP does not function in the same mode.

NOTE

- If you turn the TV off while watching in PIP mode, the PIP window will disappear.
- You may notice that the picture in the PIP window becomes slightly unnatural when you use the main screen to view a game or karaoke.

- PIP settings

Main picture	Sub picture
Component, HDMI1 HDMI2/DVI	TV

- **PIP**: Activate or deactivate the PIP function.
- **Aerial**: Select either **Air** or **Cable** as the input source for the sub-screen.
- **Channel**: Select the channel for the sub-screen.
- **Size** (/): Select a size for the sub-picture.
- **Position** (/ / /): Select a position for the sub-picture.
- **Sound Select** (**Main**/**Sub**): You can choose the desired sound **Main** / **Sub** in **PIP** mode.

❑ Changing the Picture Options

■ Advanced Settings

MENU → Picture → Advanced Settings → ↵

(available in Standard / Movie mode)

You can adjust the detailed setting for the screen including colour and contrast.

When connecting a PC, you can only make changes to the White Balance and Gamma.

- Dynamic Contrast (Off / Low / Medium / High): Adjust the screen contrast.
- Black Tone (Off / Dark / Darker / Darkest): Select the black level to adjust the screen depth.
- Flesh Tone: Emphasize pink flesh tone.

- **RGB Only Mode** (**Off** / **Red** / **Green** / **Blue**): Displays the red, green and blue colour for making fine adjustments to the hue and saturation.
- **Colour Space** (**Auto** / **Native**): Adjust the range of colours available to create the image.

  Only in custom mode,you can set up the **Colour** options.
- **White Balance**: Adjust the colour temperature for a more natural picture.

  2 Point: Adjust the colour temperature for a more natural picture.

  R-Offset / **G-Offset** / **B-Offset**: Adjust each colour's(red, green, blue) darkness.

  R-Gain / **G-Gain** / **B-Gain**: Adjust each colour's (red, green, blue) brightness.

  Reset: Resets the **White Balance** to its default settings.

10 Point for PDP TV : Controls the white balance in 10 point interval by adjusting the red, green, and blue brightness.

- Available when the picture mode is set to **Movie** and when the external input is set to all input.
- Some external devices may not support this function.

  - **Level**: Select level to adjust.
  - **Red**: Adjust the red level.
  - **Green**: Adjust the green level.
  - **Blue**: Adjust the blue level.
  - **Reset**: Resets the 10 point White Balance to its default settings.

- **Gamma**: Adjust the primary colour intensity.
- **Motion Lighting**: Reduce power consumption by brightness control adapted motion.
  - Only available in **Standard** mode.
  - When changing a setting value of **Backlight** For LED model / **Cell Light** For PDP model , **Brightness** or **Contrast**, **Motion Lighting** will not work.

Picture Options

MENU → Picture → Picture Options → ↵

When connecting a PC, you can only make changes to the Colour Tone. You can make all changes in PDP model.

- Colour Tone

  Warm1 or Warm2 will be deactivated when the picture mode is Dynamic.

  Settings can be adjusted and stored for each external device connected to an input on the TV.

- **Digital Clean View**: If the broadcast signal received by your TV is weak, you can activate the **Digital Clean View** feature to reduce any static and ghosting that may appear on the screen.
  - When the signal is weak, try other options until the best picture is displayed. choose one option among **Off** / **Low** / **Medium** / **High** / **Auto** / **Auto Visualisation**
- **Auto Visualisation**: When changing analogue channels, displays signal strength. Not for PDP model.
  - Only available for analogue channels.
  - When the **INFO** button is pressed, the signal strength bar is displayed.
  - When bar is green, you are receiving the best possible signal.
- **MPEG Noise Filter**: Reduces MPEG noise to provide improved picture quality.
  - Change its option to **Off** / **Low** / **Medium** / **High** / **Auto** in MPEG Noise Filter.

- **HDMI Black Level**: Selects the black level on the screen to adjust the screen depth.

  Available only in **HDMI** mode (RGB signals).

- **Film Mode** (**Off** / **Auto1** / **Auto2** / **Cinema Smooth** For PDP model): Sets the TV to automatically sense and process film signals from all sources and adjust the picture for optimum quality.

  Available in TV mode, AV, Component (480i / 1080i) and HDMI (1080i).

  If the screen does not seem natural, change its option to **Off** / **Auto1** / **Auto2** / **Cinema Smooth** For PDP model in **Film Mode**.

- **Analogue Clean View**: Reduce diagonal noise in the picture, caused by the crosstalk of signal.
- **LED Clear Motion**: Removes drag from fast scenes with a lot of movement to provide a clear picture. Not for PDP model.
  - It will be deactivated when the picture mode is set to **Natural**.
  - The screen may become slightly darker when you play **LED Clear Motion**.
- **Black Optimiser** For PDP model : Get deeper blacks and magnify the contrast of low gradation by using PDP waveform and signal compensation.

Picture Off

MENU → Picture → Picture Off → ↵

The screen is turned off but the sound remains on. Press any button except the volume button and power button to turn on the screen.

Reset Picture

MENU → Picture → Reset Picture → ↵

Resets your current picture mode to its default settings.

❑ Changing the Preset Sound Mode

■ Sound Mode

MENU → Sound → Sound Mode → ↵

- Standard: Selects the normal sound mode.
- Music: Emphasizes music over voices.
- Movie: Provides the best sound for movies.
- Clear Voice: Emphasizes voices over other sounds.
- Amplify: Increase the intensity of high-frequency sound to allow a better listening experience for the hearing impaired.
- Stadium: select football mode first, and will auto enter Stadium mode

If Speaker Select is set to External Speaker, Sound Mode is disabled.

❑ Adjusting Sound Settings

■ Sound Effect

(standard sound mode only)

MENU → Sound → Sound Effect → ↵

- **DTS TruSurround**

  This function provides a virtual 5.1 channel surround sound experience through a pair of speakers using HRTF (Head Related Transfer Function) technology.

- **DTS TruDialog**

  This function allows you to increase the intensity of a voice over background music or sound effects so that dialogue can be heard more clearly.

- **Equaliser**

  Use Equaliser to customize sound setting for each speaker.

  Balance: Adjusts the balance between the right and left speaker.

  100Hz / **300Hz** / **1kHz** / **3kHz** / **10kHz** (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.

  Reset: Resets the equaliser to its default settings.

If Speaker Select is set to **External Speaker**, **Sound Effect** is disabled.

Speaker Settings

MENU → Sound → Speaker Settings → ↵

- **Speaker Select** TOOLS

  A sound echo may occur due to a difference in decoding speed between the main speaker and the audio receiver. In this case, set the TV to **External Speaker**.

  When **Speaker Select** is set to **External Speaker**, the volume and **MUTE** buttons will not operate and the sound settings will be limited.

  When **Speaker Select** is set to **External Speaker**.

  - **TV Speaker**: Off, **External Speaker**: On

  When **Speaker Select** is set to **TV Speaker**.

  - **TV Speaker**: On, **External Speaker**: Off

  If there is no video signal, both speakers will be mute.

- **Auto Volume**

  To equalize the volume level on each channel, set to **Normal**.

  Night: This mode provides an improved sound experience compared to **Normal** mode, making almost no noise. It is useful at night.

NOTE To use the volume control on the source device connected to the TV, set **Auto Volume** to **Off** on the TV. Otherwise, a change to the volume contro of the source device may not be applied.

Additional Settings

MENU → Sound → Additional Settings → ↵

- **DTV Audio Level** digital channels only : **MPEG** / **HE-AAC** This function allows you to reduce the disparity of a voice signal (which is one of the signals received during a digital TV broadcast) to a desired level.

  According to the type of broadcast signal, **MPEG** / **HE-AAC** can be adjusted between -10dB and 0dB.

  To increase or decrease the volume, adjust between the range 0 and -10 respectively.

- **Digital Audio Out**: Digital Audio out is used to provide digital sound, reducing interference going to speakers and various digital devices such as a DVD player.

  Audio Format: You can select the Digital Audio output format. The available Digital Audio output format may differ depending on the input source.

  By connecting to 5.1ch speakers in a Dolby Digital setup, maximize your interactive 3D sound experience.

  Audio Delay: Correct audio-video sync programmes, when watching TV or video, and when listening to digital audio output using an external device such as an AV receiver (0ms ~ 250ms).

- **Dolby Digital Comp** (digital channel only): This function minimizes signal disparity between a dolby digital signal and a voice signal (i.e. MPEG Audio, HE-AAC, ATV Sound).

  Select **Line** to obtain dynamic sound, and **RF** to reduce the difference between loud and soft sounds at night time.

  Line: Set the output level for signals greater or less than -31dB (reference) to either -20dB or -31dB.

  RF: Set the output level for signals greater or less than -20dB (reference) to either -10dB or -20dB.

Reset Sound

MENU → **Sound** → **Reset Sound** → ↵

Reset all sound settings to the factory defaults.

❑ Executing initial setup

■ Setup

MENU → System → Setup → ↵

Configure the channels and the time when setting up the TV for the first time or when resetting the unit.

Execute the initial setup following instructions that the TV guides.

The default PIN is: 0000

❑ Setting the Time

■ Time

MENU → System → Time → ↵

The current time will appear every time you press the INFO button.

- Clock: Setting the clock is for using various timer features of the TV.

  If you disconnect the power cord, you have to set the clock again.

  Clock Mode: Set up the current time manually or automatically.

  – Auto: Set the current time automatically using the time from a digital channel.

  The aerial must be connected in order to set the time automatically.

– **Manual**: Set the current time manually.

Depending on the broadcast station and signal, the auto time set up may not be correct. In this case, set the time manually.

Clock Set: Set the **Date** and **Time**.

Available only when **Clock Set** is set to **Manual**.

You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

❑ Using the Sleep Timer

MENU → System → Time → Sleep Timer → ↵

- Sleep Timer TOOLS: Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).

  Use the ▲/▼ buttons to select a period of time, and then press the ↵ button. To cancel the Sleep Timer, select Off.

❑ Setting the On / Off Timer

MENU → System → Time → On Timer or Off Timer → ↵

- On Timer: You can set up three separate On Timer configurations. (On Timer 1, On Timer 2, On Timer 3)
  Setup: Select Off, Once, Everyday, Mon~Fri, Mon~Sat, Sat~Sun or Manual to set at your convenience. If you select Manual, you can set up the day you want to activate the timer.
  The ✓ mark indicates the day you've selected.
  Time: Set the hour and minute.
  Volume: Set the desired volume level.

Source: To select the source of the content that will play when the TV turns on. You can:

- Select **TV** and have the TV display a specific air or cable channel.
- Select **USB** and have the TV play back photo or audio files from a USB device.
- Select a source on your TV (**HDMI1**, **HDMI2/DVI**, **AV**, **Component**, etc.) that you have connected a set-top box to, and have the TV display a channel from the set-top box.

The USB device must be connected to your TV before you can select **USB**.

If you select a source other than **TV** or **USB**, you must:

- Have a cable or satellite set-top box attached to that source.
- Set the set-top box to the channel you want to watch when the TV goes on.
- Leave the set-top box turned on.

When you select a source other than **TV** the Aerial and Channel options will disappear.

Aerial (when the **Source** is set to **TV**): Select **Air**,**DTV Air**, **Cable** or **DTV Cable**.

Channel (when the **Source** is set to **TV**): Select the desired channel.

Music / **Photo** (when the **Source** is set to **USB**): Select a folder in the USB device containing music or photo files to be played when the TV is turned on automatically.

- If there is no music file on the USB device or the folder containing a music file is not selected, the timer function does not operate correctly.
- When there is only one photo file in the USB device, the slide show will not play.
- If a folder name is too long, the folder cannot be selected.
- Each USB you use is assigned its own folder. When using more than one of the same type of USB, make sure the folders assigned to each USB have different names.

– It is recommended that you use a USB memory stick and a multi card reader when using **On Timer**.

– The **On Timer** function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because these devices take a long time to be recognized.

- **Off Timer**: You can set up three separate **Off Timer** configurations. (**Off Timer 1**, **Off Timer 2**, **Off Timer 3**)

  Setup: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual** to set at your convenience. If you select **Manual**, you can set up the day you want to activate the timer.

  The ✓ mark indicates the day you've selected.

  Time: Set the hour and minute.

❑ Economical Solutions

■ Eco Solution

MENU → System → Eco Solution → ↵

- Energy Saving(Off / Low / Medium / High): This adjusts the brightness of the TV in order to reduce power consumption.
- Eco Sensor Not be supported by serial of 4 and 22"5000 : To enhance your power savings; the picture settings will automatically adapt to the light in the room.

  If you adjust the Backlight for LED model / Cell Light for PDP model the Eco Sensor will be set to Off.

  Min. Backlight for LED model / Min Cell Light for PDP model : When Eco Sensor is On, the minimum screen brightness can be adjusted manually.

  If Eco Sensor is On, the display brightness may change (become slightly darker or brighter) depending on the surrounding light intensity.

- **No Signal Power Off** (**Off** / **15 min** / **30 min** / **60 min**): To avoid unnecessary energy consumption, set how long you want the TV to remain on if it's not receiving a signal.

  Disabled when the PC is in power saving mode.

- **Auto Power Off** (**Off** / **On**): If the **Auto Power Off** is **On**,the TV will be automatically turned off when no user operation is received for 4 hours.

❑ Other Features

■ Menu Language

MENU → System → Menu Language → ↵

Set the menu language.

Change PIN

MENU → System → Change PIN → ↵

Change your password required to set up the TV.

The PIN input screen appears before the set up screen.

Enter your 4-digit PIN (The default Pin is 「0-0-0-0」). Change the PIN using the Change PIN option.

Auto Protection Time for LED TV

MENU → System → Auto Protection Time → ↵

If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.

Screen Burn Protection for PDP model

MENU → System → Screen Burn Protection → ↵

- Pixel Shift(Horizontal / Vertical / Time): Configure Pixel Shift to prevent screen damage.
- Auto Protection Time (for PDP Off / 5 min / 10 min / 20 min / 30 min) (for LED Off / 2 hours / 4 hours / 8 hours / 10 hours): If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.
- Scrolling : Display moving patterns to remove residual images on the screen.
- Side Grey(Light / Dark) : Prevent screen burn by turning the "sidebars"gray when viewing in 4:3 picture aspect ratio.

General

MENU → System → General → ↵

- Game Mode: When connecting to a game console such as Play Station™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game mode.

  NOTE

  - Precautions and limitations for game mode.
    - To disconnect the game console and connect another external device, set Game Mode to Off in the setup menu.
    - If you display the TV menu in Game Mode, the screen shakes slightly.

- **Game Mode** is not available in **TV** mode.
- After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.
- If **Game Mode** is **On**:
  - **Picture Mode** is set to **Standard** and **Sound Mode** is set to **Movie**.

- **Panel Lock**: Lock or unlock all the keys on the TV. When Panel lock is on, none of the keys on the panel will work.
- **Boot Logo**: Display Samsung logo when the TV is turned on.

DivX® Video On Demand

MENU → System → DivX® Video On Demand → ↵

Shows the registration code authorized for the TV. If you connect to the DivX web site and register with 10-digit registration code, you can download the VOD activation file.

Once you play it using **Videos**, the registration is completed.

For more information on DivX® VOD, visit http://vod.divx.com.

❑ Using the Source List

■ Source List

MENU → Applications → Source List → ↵

When you press the SOURCE button, Source screen will be displayed at once.

You can only choose external devices that are connected to the TV. In Source, connected inputs are highlighted.

❑ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo, music and movie files to the USB port on the side of the TV.
3. When USB is connected to the TV, popup window appears. You can select the **Photos**, **Videos** or **Music** directly.

- It might not work properly with unlicenced multimedia files.
- Need-to-Know List before using Media Contents
  - MTP (Media Transfer Protocol) is not supported.
  - The file system supports NTFS (Read Only), FAT16 and FAT32.
  - Certain types of USB Digital camera and audio devices may not be compatible with this TV.
  - Media Play only supports sequential jpeg format.
  - Media Play only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives, Flash Card Readers (USB HUB are not supported). Devices should be connected directly to the TV's USB port.

- Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- The HDD (Hard Disk Drive) connected to USB is not supported. Only for LED 4100/5100 series models
- Do not disconnect the USB device while it is loading.
- The higher the resolution of the image, the longer it takes to display on the screen.
- The maximum supported JPEG resolution is 15360 x 8640 pixels.
- For unsupported or corrupted files, the “Not Supported File Format” message is displayed.
- The scene search and thumbnail functions are not supported in the **Videos**.

- MP3 files with DRM that have been downloaded from a non-free site can not be played. Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.
- A USB device that requires high power (more than 500mA or 5V) may not be supported.
- If the TV has been no input during time set in **Auto Protection Time**, the Screensaver will run.
- The power-saving mode of some external hard disk drives may be released automatically when connected to the TV.

- If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
- If a file deleted from the PC is still found when Media Contents is run, use the “Empty the Recycle Bin” function on the PC to permanently delete the file.
- If the number of files and folders saved on a USB storage device is approximately over 4000, the files and folders may not appear and some folders may not be opened.

Disconnecting a USB Device

1. Press the **SOURCE** button.
2. Select a desired USB device, and then press the **TOOLS** button. The **Tools** menu appears.
3. Select **Disconnect USB Device**, and then wait until the selected USB device is disconnected. You can remove a USB device from the TV.

To remove a USB device from the TV, we recommend use **Disconnect USB Device** function.

❑ Using the Media Play

MENU → Applications → Media Play → ↵

Enjoy photos, music and movie files saved on a USB Mass Storage Class (MSC) device.

1. Press the **MEDIA.P** button.
2. Press ◄/► button to select desired menu (**Photos**, **Videos**, **Music**), then press the ↵ button.
3. Press ◄/► button to select desired device, then press the ↵ button again.
4. Press the ▲/▼/◄/► button to select the desired file in the list, then press the ↵ button or ► (Play) button.

Playing the selected files

1. Press the ▲ button to select **Options** at the top of each main screen and select **Play Selected**.
2. Select the desired files.
   - The check box appears to the left of the selected files.
   - Press ↵ button again to deselect the file.
3. Press the ► button to select **Play**.
   - You can select or deselect all files pressing the **Select All** / **Deselect All**.

Copy the files Copying the files to the other USB device Only for LED 4100/5100 series models

1. Press the ▲ button to select **options** at the top of the each main screen and select **Copy**.
2. Select the files
   - The Check box appears to the left of the files
   - Press **ENTER** button again to deselect the file
3. Press the ▲ button to select **Copy**.
   - You can select or deselect all files pressing the **Select All** / **Deselect All**.
   - You can cancel the copy by pressing the **Cancel**.
4. After press **Copy** You can select the destination device the copy the file,you can also cancel the copy pressing the **Cancel** button.

❑ Playing the Photos / Videos / Music

During playing a file, press the ▲/▼/◄/► button to select the desired menu.

- When the option menu is not displayed, press the button or button.
- You can also use ►/II/■/◄◄/►► buttons on the remote control during playback.
- If you press the **INFO** button during playback, you can view the playback information.

Playback menu

Button	Operation	Photos	Videos	Music
❮ / ❯	Previous/Next	●		
▶ / ⏸	Start Slide Show / Stop Slide Show	●		
	Play / Pause	*	●	●
⏮ / ⏭	Previous/Next	*	●	●
⏪ / ⏩	Rewind / Fast forward		●	●

* When setting the Background Music to Mini Player in Photos, these buttons appear.

Photos

Button	Operation	
	Slide Show Settings	You can set the Speed and Effects during the slide show.
	Zoom	You Can Zoom the image .
	Rotate	You can rotate images in full screen mode.
	Background Music	You can set background music when watching a slide show.
	Settings	Picture Mode / Sound Mode: You can adjust the picture. Information: You can see detailed information about the played file.
	Set Logo	You can save the picture as start-up screen or Restore to Samsung logo. For PDP Mode

- During the slide show, all files in the file list will be displayed in order.
- When you press the ► (Play) button (or ▲ button → **Options** → **Slide Show**) in the file list, slide show will be started immediately.
- During the slide show, you can adjust the slide show speed using ◄◄ (REW) or ►► (FF) button.

- **Supported Photo Formats**

- For the details, refer to “Specifications” in User Manual.

Videos

Button	Operation	
	Search	Search Titles: You can move to the other file directly. Search Time Bar: You can search the video using ◄ and ► button at one minute interval or entering the number directly. It may not be supported depending on the input source.
	Repeat Mode	You can play movie files repeatedly.
	Picture Size	You can adjust the picture size to your preference.
	Settings	Subtitle Settings: You can play the video with subtitles. This function only works if the subtitles are the same file name as the video. Picture Mode / Sound Mode: You can adjust the picture or sound setting. Audio Language: You can change the audio language if the video has more than one language. Information: You can see detailed information about the played file.

If video time information is unknown, play time and progress bar are not displayed.

In this mode, you can enjoy movie clips contained on a Game, but you cannot play the Game it self.

- **Supported Subtitle / Video Formats**

  For the details, refer to “Specifications” in User Manual.

Music

Button	Operation	
	Repeat	You can play music files repeatedly.
	Shuffle	You can play the music randomly.
	Sound Mode	You can adjust the sound setting.

Only displays the files with supported music file extension. Other file extensions are not displayed, even if they are saved on the same USB device.

If the sound is abnormal when playing music files, adjust the **Equaliser** in the **Sound** menu. (An over-modulated music file may cause a sound problem.)

- **Supported Music Formats**

  For the details, refer to “Specifications” in User Manual.

Setting the Encoding language

Set the encoding language if the text is not supported.

1. Press the ▲ button to select **Options** at the top of music main screen and select **Encoding**.
2. Select the desired encoding language.

❑ Using the Football Mode

■ Football Mode TOOLS

MENU → Applications → Football Mode → ↵

The name may differ depending on the region. This mode provides optimized condition for watching sports games.

- A (Zoom): Pause playback and divide the picture into 9 parts. Select a part to zoom it in. Press this button again to resume.

When the Football Mode is On, the picture and sound modes are set to Stadium automatically.

If you turn the TV off while watching Football Mode, the Football Mode will be disable.

When the Data Service is running,the Zoom is not available. For LED Model

❑ Using the Screen&Sound Capture function

■ Screen&Sound Capture Not for 5080 series

MENU → Applications → Screen&Sound Capture → ↵

This function provides capture screen or record an audio from the TV screen being viewing. Additionally, you can save the capture image and record audio on the USB device connected the TV. This function provides the TV screen you watched capture image and record audio.

- **Screen&Sound Capture**

  Turn the **Screen&Sound Capture** function on or off.

- **Default Capture Device**

  You can set the default device for saving captured image files and recorded audio files.

- **Screen Capture**

  1. To capture the screen while watching TV, press C. This captures the screen.

     It may take 2 to 3 seconds to capture the screen.

  2. Once captured, the image is saved as a .jpg file to the USB device connected to the TV. Thumbnails of captured images are then displayed on the screen.

     Select the thumbnail screen to view the saved images on Media Play.

- **Sound Recording**

1. Press D. This records audio in real-time.

   A popup window will appear on the screen while recording is in progress.

   The popup window displays the duration of the recording.

2. To stop recording, press ■. The recording is stored as a .wav file on the USB device connected to the TV. Thumbnails of the audio recordings are then shown on the screen.

   Select the thumbnail screen to play the saved audio files on Media Play.

   You cannot change the channel or source to an external device. To change the channel or the source to an external device, first stop recording audio.

❑ Viewing the e-Manual

■ e-Manual

MENU → Support → e-Manual → ⏎

You can read the introduction and instructions about the TV features stored in your TV.

For the detailed information about e-Manual Screen, refer to “How to use the e-Manual” in User Manual.

❑ Using the Self Diagnosis

■ Self Diagnosis

MENU → Support → Self Diagnosis → ↵

Self Diagnosis might take few seconds, this is part of the normal operation of the TV.

- Picture Test: Use to check for picture programmes.
- Sound Test: Use the built-in melody sound to check for sound programmes.

  If you hear no sound from the TV's speakers, before performing the sound test, make sure Speaker Select is set to TV Speaker in the Sound menu.

  The melody will be heard during the test even if the sound is muted by pressing the MUTE button.

- **Signal Information** (digital channels only): HDTV channel's reception quality is either perfect or the channels are unavailable. Adjust your aerial to increase signal strength.
- **Reset**: Reset all settings to the factory defaults except network settings.
  - The PIN input screen appears before the setup screen.
  - Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.
  - The default PIN is 0-0-0-0

❑ Updating the Software

■ Software Update

MENU → **Support** → **Software Update** → ⏎

The **Software Update** menu lets you upgrade your TV's software to the latest version.

Current Version: This is the software version already installed in the TV.

✎ When software is upgraded, video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.

- **Update now**
  - By USB: Insert a USB drive containing the firmware upgrade file, downloaded from "www.samsung.com" into the TV.
    - Please be careful not to disconnect the power or remove the USB drive until uprades are complete. The TV will be turned off and on automatically after completing the firmware upgrade.
  - By Channel Not for PDP model: Upgrade the software using the broadcasting signal.
    - If the function is selected during the software transmission period, software will be automatically searched and downloaded.
    - The time required to download the software is determined by the signal status.

- **Auto update** Not for PDP model

  A manual upgrade will be automatically performed at selected time. Since the power of the unit is turned on internally, the screen may be turned on slightly for the product. This phenomenon may continue for more than 1 hour until the software upgrade is complete.

  On: When auto update is on, update will be automatically performed.

  Off: When auto update is off, update cannot be automatically performed.

❑ Changing the Use Mode

■ Use Mode

MENU → Support → Use Mode → ↵

Select the Use Mode suitable for your place. We strongly recommend you select Home Use.

- Home Use: Home Use is the default setting.
- Store Demo: Store Demo is for retail environments only. If you select Store Demo, some functions will not work, and the picture settings will be reset every 5 minutes.

❑ Viewing the Contact Samsung

■ Contact Samsung

MENU → Support → Contact Samsung → ↵

View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centres, and how to download products and software.

❑ Using the Wireless Network

for 5100 series Only for LED model

MENU → Network → Network Setting → ↵

For the details, you can find an additional web manual on our website "www.samsung.com".

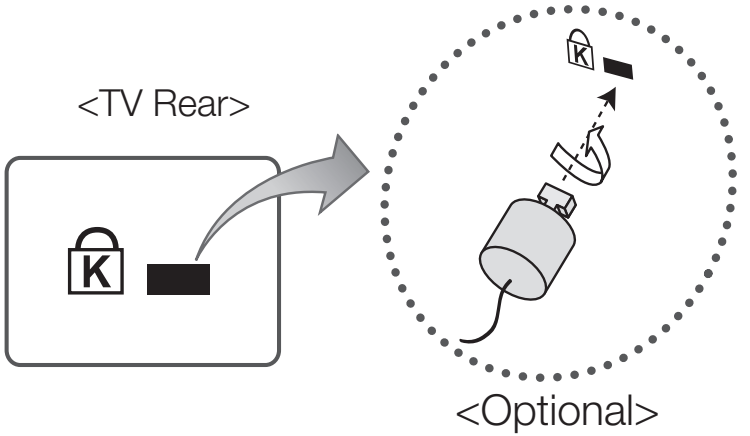
❑ Anti-theft Kensington Lock

The Kensington Lock is not supplied by Samsung. It is a device used to physically fix the system when using it in a public place. The appearance and locking method may differ from the illustration depending on the manufacturer. Refer to the manual provided with the Kensington Lock for additional information on proper use.

- Please find a “” icon on the rear of the TV. A kensington slot is beside the “” icon.
- The position and colour may differ depending on the model.

To lock the product, follow these steps

1. Wrap the Kensington lock cable around a large, stationary object such as desk or chair.
2. Slide the end of the cable with the lock attached through the looped end of the Kensington lock cable.
3. Insert the locking device into the Kensington slot on the product.
4. Lock the lock.



These are general instructions. For exact instructions, see the User manual supplied with the locking device.

The locking device has to be purchased separately.